CLAIMS

1. In a Java computing environment, a Java object representation suitable for use by a Java virtual machine, said a Java object representation comprising:

a first reference to an internal class representation of said Java object;

a second reference to instance fields associated with said Java object; and

wherein said first reference is a direct reference to said internal class representation of said Java object.

2. A Java object representation as recited in claim 1,

wherein said second reference is a reference to an array of references, and

wherein each reference in said array of references is a reference to an instance field associated with said Java object.

3. A Java object representation as recited in claim 1, wherein said first reference is allocated as four bytes.

4. A Java object representation as recited in claim 1, wherein said second reference is allocated as four bytes.

5. A Java object representation as recited in claim 1,

wherein said internal class representation includes a header of a predetermined size, and

wherein a method table associated with said Java object is allocated immediately after said header.

6.   A Java object representation as recited in claim 1, wherein said Java object representation further comprises:

a hash key that can be used to identify the Java object.

7.   A Java object representation as recited in claim 6, wherein said hash key is the memory address of said first reference.

8.   A method for representing a Java object in a virtual machine, said method comprising:

allocating a first reference in a memory portion of said virtual machine, wherein said first reference is a reference to an internal class representation of said Java object;

allocating a second reference in a memory portion of said virtual machine, wherein said second reference is a reference to instance fields associated with said Java object; and

wherein said first reference is a direct reference to said internal class representation of said Java object.

9.   A method as recited in claim 8,

wherein said second reference is a reference to an array of references, and

wherein each reference in said array of references is a reference to an instance field associated with said Java object.

10.   A method as recited in claim 9, wherein said first reference is allocated as four bytes.

11.   A method as recited in claim 9, wherein said second reference is allocated as four bytes.

12.   A method as recited in claim 9,

wherein said internal class representation includes a header of a predetermined size, and

wherein a method table associated with said Java object is allocated immediately after said header.

13.   A method as recited in claim 9, wherein Java object representation further comprises:

storing a hash key that represents the object.

14.   A method as recited in claim 9, wherein said hash key is the memory address of said first reference.

15.   A method of accessing information regarding a Java object, said method comprising:

identifying an object representation associated with said Java object;

using a first reference in said object representation to locate an appropriate internal class representation associated with said Java object;

accessing information regarding said Java object from said internal class representation; and

wherein said object is represented in a Java virtual machine.

16.	A method as recited in claim 15, wherein said method further comprises:

skipping a header of said internal class representation to access a
5	method table associated with said Java object.

17.	A method as recited in claim 15, wherein said information regarding said Java object includes a field descriptor table.

10	18.	A computer readable media including computer program code for a Java object representation suitable for use by a Java virtual machine, said computer readable media comprising:

computer program code for a first reference to an internal class representation of said Java object;

15	computer program code for a second reference to instance fields associated with said Java object; and

wherein said first reference is a direct reference to said internal class representation of said Java object.

20	19.	A computer readable media as recited in claim 18,

wherein said second reference is a reference to an array of references, and

wherein each reference in said array of references is a reference to an instance field associated with said Java object.

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20. A computer readable media as recited in claim 18, wherein said computer readable media further comprises:

computer program code for a hash key for the Java object.